

Claims

1. A process for producing a ubiquinone-10-containing solution, which comprises the following steps:

[1] adding a methanol solution to a culture obtained by culturing a microorganism having an ability to produce ubiquinone-10 in a medium, a processed product of the culture, or a partially purified product of ubiquinone-10, to a final concentration of 50 to 100 v/v% and then retaining the resulting mixture at a temperature of 0°C or above and 30°C or below;

[2] separating and recovering an insoluble matter from the solution obtained at the step [1];

[3] adding a methanol solution of a concentration of 85 to 100 v/v% to the insoluble matter obtained in the step [2] and retaining the resulting mixture at a temperature of more than 30°C and 80°C or below; and

[4] removing an insoluble matter from the solution obtained in the step [3].

2. The process according to claim 1, wherein the steps of adding a methanol solution again to the insoluble matter obtained in the step [2] to a final concentration of 50 to 100 v/v%, retaining a resulting mixture at a temperature of 0°C or above and 30°C or below, and subsequently separating and recovering a resulting insoluble matter are repeated once or more times before the subsequent step [3].

3. The process according to claim 1 or 2, wherein the

microorganism having an ability to produce ubiquinone-10 is a microorganism selected from microorganisms of basidiomycetes, fungi, yeast and bacteria.

4. The process according to claim 1 or 2, wherein the processed product of the culture is a concentrate of the culture of the microorganism, a dried product of the culture, a bacterial cell obtained by separation from the culture, a dried product of the bacterial cell, a freeze-dried product of the bacterial cell, a rinsed bacterial cell obtained by rinsing the bacterial cell, a dried product of the rinsed bacterial cell or a freeze-dried product of the rinsed bacterial cell.

5. A process for producing a crystal of ubiquinone-10, which comprises depositing the crystal of ubiquinone-10 from the ubiquinone-10-containing solution obtained by the process according to claim 1 or 2.

6. The process according to claim 5, wherein the crystal of ubiquinone-10 is a crystal having a purity of 90.0% or more.